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onospora. From the fact that *Peronospora australis* Spegaz. grows upon *Sicyos angulatus*, another member of the cucumber family of plants, one naturally turned to that as given in Ellis' N. A. F. No. 1416 for comparison and verification. The conidiophores and conidia are surprisingly different from the *Sicyos* species, and the patches of mildew as a natural consequence have a different aspect. Attempts have been made to germinate the conidia, but as yet without success. The oospores have not been met with.

This note is introduced here that students of this destructive group may be upon the watch for the cucumber mildew and its present range determined. From the nature of the fungus, and the plant upon which it is found, it is to be feared that market gardeners may have in the cucumber mildew a serious enemy, especially should it spread to squashes, melons and other members of the Cucurbitaceæ, and attack the seedling plants.—BYRON D. HALSTED, *Rutgers College, New Brunswick, N. J.*

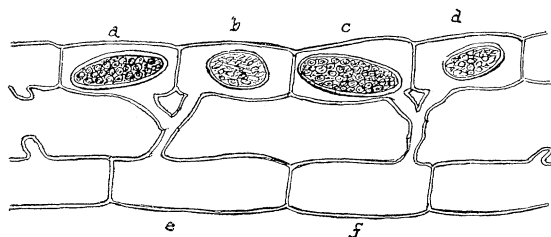
Lactuca Scariola L.—I first noticed this plant in the summer of 1885 in the corner of an abandoned vegetable garden, and in the adjacent street, near my home on 71st street. It has since spread along the street for a couple of blocks, and is well established. I have not seen it elsewhere in the vicinity of Chicago.—E. J. HILL, *Englewood, Ill.*

Aster ptarmicoides, var. **lutescens** Gray.—In the BOTANICAL GAZETTE for 1883 (Vol. VIII, p. 238), an article by me appeared entitled "Aster or Solidago." It was based on a study of some plants found at Englewood nearly like *A. ptarmicoides*, but with pale yellow flowers. The question was raised whether it might not be a hybrid. This supposition proved to be wrong, for, specimens being sent subsequently to Dr. Gray, he identified it as given above, and it was thus published in the "Synoptical Flora." The article closed with the statement that the plant might throw some light on the *Aster lutescens* of "Torrey and Gray's Flora of North America," which Douglas collected in British America, near the Assiniboine river, as it seemed quite near that species. This conjecture, it seems, turned out to be true.

But the habitat here is at a great distance from that, and I do not learn that it has been found elsewhere in the United States. Macoun (Catalogue of Canadian Plants), under *A. lutescens* Torr. & Gray, states that it grows by the Assiniboine river, on the authority of Douglas, and on his own authority says: "west of the Touchwood Hills, 1872, not detected since." Gray, in the "Synoptical Flora," says, "Red river." But the Assiniboine and Red rivers unite in Manitoba a little before flowing into Winnipeg Lake, so that the region is essentially the same. The Touchwood hills are about 500 miles farther west, near the upper waters of the Assiniboine. I find no mention of its occurrence in other places. In his "Catalogue of the Flora of Minnesota" (1884), Warren Upham, referring to its presence in Northern Illinois, says: "it will probably be found in Minnesota."

It is the rarest of plants here. The locality where it was first seen is now on one of the main business streets of Englewood, and mostly covered with buildings. I afterwards found a few plants about a mile farther south, at Normal Park, and transplanted some of them, as the locality was rapidly passing into the hands of those building residences. But one of these plants is now living, a vigorous specimen, and with rather larger flowers than when planted, as if cultivation agreed with it. I have looked for plants every summer since these were taken up (1886), but so far without finding them. It grows in company with the typical *A. ptarmicoides*, which is everywhere abundant in the dry grounds here. But the plant in my garden is the only one I know to be existing this side of British America, though I shall still continue the search for it. I should expect the connection of these widely separated localities to be by way of Lakes Michigan and Superior. Several years ago I found a somewhat similar case, an isolated patch of a malvaceous plant, *Sphaeralcea rivularis* Torr., on an island of the Kankakee river. Its home is in the far west, "W. Wyoming, northward and westward" (Coulter's Manual of Rocky Mountain Botany). In a notice of this plant, in the "American Journal of Science" (3, vii, 239), Dr. Gray gave his opinion as follows: "Unexpected as the discovery is it is not difficult to see how the species may have got there. A good many northwestern plants occur on the shore of the southern end of Lake Michigan, evidently through water transport. Some of these may have come in recent times, although this could not be inferred simply from the fact that they have not been noticed until lately. Here is one which probably came so long ago as when Lake Michigan discharged into the Mississippi, the lower part of the Kankakee river being in the direct course of the discharge. The present plants may more probably be regarded, not as chance stragglers, but as lingering remnants indicating an ancient habitat." When the Aster was sent, he expressed similar views regarding its presence here.—E. J. HILL, *Englewood, Ill.*

A phase of conjugation in Spirogyra.—The accompanying illustration was made from a camera lucida drawing of a phase of polygamy in



Spirogyra longata which was put in alcohol in May, 1888. It completes the history of the phase suggested by Rose's nos. 10, 11 and 12, vol x, page 304, of the GAZETTE.

The contents of *e* seem to have passed into *a* and *b* and a zygospore has been formed in each. That in *a* is larger and darker than the one in *b*. The same is true in *c* and *d*.—C. B. ATWELL, *Evanston, Ill.*